Program Assignments – White Loops

1. Develop flowgorithm and code this this problem. Display the odd numbers starting at 1 and ending with 25. Use a while loop structure for this problem.

number = 1

print(number)

while number < 25:

number = number + 2

print(number)

1. Develop the pseudocode and code for this problem. Allow the user to enter a start value, stop value and increment value. Display all the numbers from the start value to stop value using the increment value as you proceed. Use a while loop structure for this problem.

Get start value

Get stop value

Get increment value

assign current value as start value

while current value is less than stop value

(add increment value to current value)

display current value each time

print("Enter start value = ")

startValue = float(input())

print("Enter stop value = ")

stopValue = float(input())

print("Enter increment = ")

incrementValue = float(input())

currentValue = startValue

print(currentValue)

while currentValue < stopValue:

currentValue = currentValue + incrementValue

print(currentValue)

1. Develop pseudocode and code for this problem. Prompt the use on whether they want to do this program. Yes means they want to continue. Any other response indicates they will stop the program. This response is the loop control variable. If the user answers Yes then go into the while loop.

Once in the while loop. You are to prompt the user for their last name and two exam scores. Write a function to compute the average exam score. Display last name and average.

Finally, the last statements of the while loop will ask the user if they want to do this loop again. In other words the user needs to be prompted again. The reason is that the end of the loop takes execution to the while condition to be evaluated again. It can not take us to the first few lines of code that prompt the user for the first time. That code is out of the loop. Therefore, we need a second prompt at the bottom, inside the loop.

Ask if user wants to run the program

While they say yes (

Get last name

Get exam score 1

Get exam score 2

Function get the average of exam scores

Display last name

Display average

Ask if user wants to run program )

def computeAverage(exam1, exam2):

average = (exam1 + exam2) / 2

return average

# Main

print("Do you want to run this program?")

var\_continue = input()

while var\_continue == "yes":

print("Enter last name = ")

lastName = input()

print("Enter first exam score = ")

exam1 = float(input())

print("Enter second exam score = ")

exam2 = float(input())

print(lastName)

print("Average exam score = " + str(computeAverage(exam1, exam2)))

print("Do you want to run this program?")

var\_continue = input()